

REMARKS

Applicants traverse the rejections of the initial office action and request favorable reconsideration and allowance of provisionally elected claims 1-34 and 45-47 in view of the following remarks.

Claim Status

Claims 1-47 are pending. Claims 1, 17, 35, 41, and 45 are independent. Claims 35-44 are withdrawn from consideration, upon a restriction requirement that now has been made final. No new matter has been added.

Rejected Claims

Applicants request favorable reconsideration and withdrawal of the rejections set forth in the Office Action.

Claims 1, 11-16, and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,508,375 to Patterson et al. (“Patterson”) in view of U.S. Patent No. 4,696,499 to Butler (“Butler”). Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Patterson in view of U.S. Patent No. 2,145,168 to Flagg (“Flagg”). Claims 2-10 and 46-47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Patterson and Butler” and “further as a matter of optimization.”

Claims 18-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Patterson and Flagg” and “further as a matter of optimization.” Applicants submit that the present invention, as recited in independent claims 1, 17, and 45, is not obvious over the aforementioned art combinations. Therefore, these rejections are respectfully traversed, as discussed below.

In one aspect of the present invention, independent claim 1 recites a radially expandable threaded tubular assembly. The assembly comprises a radially expandable male threaded element having external male threading and a first free end. The external male threading includes a first incomplete thread and a first hooked thread. The first incomplete thread is located at least adjacent the first free end of the male threaded element. The assembly also comprises a radially expandable female threaded

element having internal female threading and a second free end. The internal female threading includes a second incomplete thread and a second hooked thread. The second incomplete thread is located at least adjacent the second free end of the female threaded element. The female threaded element is threadedly engaged with the male threaded element. The assembly also comprises an elastomeric sealant extending between the external male threading and the internal female threading. The sealant adheres to both the external male threading and the internal female threading, and is capable of being elongated after curing while remaining extended between and adhered to the external male threading and the internal female threading.

In another aspect of the present invention, independent claim 17 recites a radially expandable threaded tubular assembly. The assembly comprises a radially expandable male threaded element having external male threading and a first free end. The external male threading includes a first incomplete thread and a first hooked thread. The first incomplete thread is located at least adjacent the first free end of the male threaded element. The assembly also comprises a radially expandable female threaded element having internal female threading and a second free end. The internal female threading includes a second incomplete thread and a second hooked thread. The second incomplete thread is located at least adjacent the second free end of the female threaded element. The assembly also comprises a first metallic coating disposed on and adhered to the external male threading, and a second metallic coating disposed on and adhered to the internal female threading. The female threaded element is threadedly engaged with the male threaded element, and the first metallic coating is cold welded to the second metallic coating.

In yet another aspect of the present invention, independent claim 45 recites an expandable sealed tubular joint. The joint comprises a pair of radially expandable elements each having threading at a free end thereof and coupled to one another. The threading includes hooked incomplete threads located at least adjacent the free ends. The joint also comprises a sealing substance extending between and adhering to the threading of one radially expandable element and the threading of the other radially expandable element. After a radial expansion of the coupled pair of radially expandable elements,

the sealing substance remains extended between and adhered to the threading of one radially expandable element and the threading of the other radially expandable element.

Patterson in view of Butler

Patterson relates to a threaded and coupled tubular connection comprising a male member and a female member having engageable threads disposed on respective first and second substantially matching tapers. The Examiner contends that Patterson discloses (i) radially expandable male and female threaded elements, and (ii) first and second hooked threads. Patterson does not do so whatsoever—expressly or inherently. Indeed, the Patterson patent application was filed in 1982, and radially expandable tubulars were not even commercially used in the oil industry until about late 1999—nearly 17 years later. *See Kenneth K. Dupal et al., SPE/IADC 67770 – Solid Expandable Tubular Technology - A Year of Case Histories in the Drilling Environment*, p. 1 (2001) (cited in 11/5/03 IDS); T. Grant et al., *The Evolution of Solid Expandable Tubular Technology: Lessons Learned Over Five Years (OTC 17442)*, p. 1 (2005) (cited in IDS filed concurrently herewith); *see also* Mike Bullock et al., *Using Expandable Solid Tubulars to Solve Well Construction Challenges in Deep Waters and Maturing Properties (IBP 27500)*, p. 1 (2000) (“The first test of solid expandable tubular technology was conducted in 1993 by Royal Dutch Shell in the Hague”) (cited in IDS filed concurrently herewith). The 1/27/05 International Search Report in the corresponding foreign patent application of the subject application also noted that Patterson merely discloses “the general state of the art which is not considered to be of particular relevance” (cited in 2/11/05 IDS). Furthermore, Patterson discloses only “butress” and “acme” threads (*see, e.g.*, col. 2:60), not “hooked” threads.

Butler does not cure the substantial disclosure deficiencies of Patterson. Butler, which was itself filed in 1983, merely relates to a mechanical pipe joint in which a pin formed on the end of one pipe section is inserted in a socket formed in the end of another pipe section, wherein “sealant” is trapped to form an annular seal for the joint. But like Patterson, Butler does not disclose radially expandable elements or hooked threads. Indeed, Butler does not even disclose threads.

Neither Patterson nor Butler describes, teaches, or suggests the *structural combination* of the present invention as set forth, for example, in independent claims 1 and 45. *See Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1348-49 (Fed. Cir. 2000) (“Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be ‘*clear and particular.*’”) (internal citations omitted, emphasis added); *In re Mills*, 916 F.2d 680, 683 (Fed. Cir. 1990) (mere fact that references *can* be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination). Neither discloses radially expandable elements, such as radially expandable threaded tubulars. Neither discloses hooked threads. And neither discloses sealant on threads that remains extended between and adhered to the external male threading and the internal female threading after radial expansion. Indeed, the Examiner does not explain how such deficient disclosures *clearly and particularly* teach the present invention, without relying on Applicants’ disclosure and the benefit of hindsight.

Applicants submit, therefore, that Patterson in view of Butler fails to obviate salient features of Applicants’ present invention, as recited in independent claims 1 and 45.

Patterson in view of Flagg

Flagg does not cure the substantial disclosure deficiencies of Patterson (see above).

Flagg, which was filed in 1935, relates to a method of making pipe joint connections. In Flagg, the pin and the box member are both heated to a desired temperature and coated with a low melting metal (e.g., solder or tin). (*See, e.g.*, P. 2, col. 1:28-39.) The temperature of the pin and box member are such that the low melting metal “remain[s] in molten condition as the threaded connection is made up and will solidify as the pipe cools.” (P. 2, col. 2:7-9; *see* p. 2, col. 1:40 to col. 2:18.) Flagg does not, however, teach or disclose a first metallic coating being cold welded to a second

metallic coating, as recited, for example, in independent claim 17. In addition, Flagg does not disclose radially expandable elements or hooked threads.

Neither Patterson nor Flagg describes, teaches, or suggests the *structural combination* of the present invention as set forth, for example, in independent claim 17. *See Winner*, 202 F.3d at 1348-49; *In re Mills*, 916 F.2d at 683. Neither discloses radially expandable elements, such as radially expandable threaded tubulars. Neither discloses hooked threads. And neither discloses a first metallic coating being cold welded to a second metallic coating. Indeed, the Examiner does not explain how such deficient disclosures *clearly and particularly* teach the present invention, without relying on Applicants' disclosure and the benefit of hindsight.

Applicants submit, therefore, that Patterson in view of Flagg fails to obviate salient features of Applicants' present invention, as recited in independent claim 17.

Dependent Claims

Dependent claims 2-16, 18-34, and 46-47 also should be deemed allowable, in their own right, for defining other patentable features of the present invention in addition to those recited in their respective independent claims. For example, none of Patterson, Butler, and Flagg discloses a flush joint connection, as recited, for example, in dependent claims 11, 29, and 47.

The Examiner contends that dependent claims 2-10, 18-34, and 46-47 are obvious as a "matter of optimization." Applicants respectfully disagree with that unsupported contention. As discussed above, neither Patterson in view of Butler nor Patterson in view of Flagg discloses the general conditions of the subject claims. Nevertheless, this issue is moot in view of the discussion above regarding independent claims 1, 17, and 45.

Further individual consideration of these dependent claims is requested.

Conclusion

Applicants further submit that the instant application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



Stephen E. Belisle

Registration No. 46,546

Attorney for Applicants

FITZPATRICK, CELLA, HARPER & SCINTO
Customer No. 05514
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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